

REMARKS

Applicants have reviewed the Office Action mailed April 21, 2009. After entry of this amendment, claims 1, 3, 4, and 15-18 are pending in the application and claim 2 is cancelled. Claims 5-8 had previously been cancelled, and claims 9-14 had previously been withdrawn from consideration.

Applicants acknowledge with thanks the withdrawal of the Section 102 rejection based upon Agnihotri et al. as evidenced by Tuninst and the Section 103 rejections based on the combination of Jayaprakasha et al and Tuninst alone and in further combination with Poole et al and Valero et al.

Objections

Claims 16 and 18 are objected. Applicants thank the examiner for pointing out the need to properly format Claim 16 and Claim 18 by respectively adding a space between “wt%” to read “wt %” and a space between “upto” to read “up to.” Applicant has amended claims 16 and 18 to address these informalities and submit that the objections have been obviated.

Claim Rejections – 35 USC § 112

Claims 1-4 and 15-18 stand rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. Specifically, the Examiner states that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention.” Applicants have amended claims 1, 16, and 18 to remove the terms “ripe,” “about” and “up to about 10 wt % hexane.” In light of these amendments, Applicants respectfully request that the rejection under Section 112 be withdrawn.

Claim Rejections – 35 USC § 102

Claims 1, 3 and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Jayaprakasha et al. (1997, Flavour and Fragrance Journal, 12, 331-333) as evidenced by Tuninst (<http://www.tuninst.net/MyanMedPlants/T1UfamULauraceae.-htm#Cinnamomum-zeylanicum>) and Li (1996, Malawai: Country Report to the FAO International Technical Conference on Plant Genetic Resource, Leipzig).

In order for a rejection of a claim to stand under section 102(b), each and every element of the claim must be present in the prior art reference in order for the claimed invention to be anticipated. Applicants submits that Jayaprakasha, et al. does not teach or disclose every element of the invention as claimed in amended claim 1.

The invention of amended claim 1 is a composition comprised of a hexane extracted bioactive fraction obtained from fruits of *Cinnamomum zeylanicum* and having a moisture content of between 4% to 6%. However, Jayaprakasha et al. teaches a process for obtaining volatile oils by hydrodistillation (steam distillation) of cinnamon fruit, which is not a hexane extraction process and cannot yield a hexane extracted bioactive fraction. Further and more importantly, Jayaprakasha et al. is solely concerned with producing volatile oils from fruit. At page 333, Jayaprakasha et al teaches that the oils produced by their process may be used in perfumery and as flavouring agents. There is no teaching, recognition or suggestion that the fruit of *Cinnamomum zeylanicum* contains bioactive components or of the extraction of bioactive components or fractions from the *Cinnamomum zeylanicum* fruit.

Tuninst is cited solely for the proposition that ripe *Cinnamomum zeylanicum* are “blackish green, purple pale brown when ripe.” Applicants have amended the claims to remove reference to ripeness and submits that what Tunis’s evidences is no longer pertinent. The

pertinence of Li is not apparent since the discussion at page 18, under the section heading “3.3 Storage Facilities,” is concerned with the storage of seed and the moisture content of stored seed. The cited discussion in Li is not concerned with the moisture content of a composition.

In view of the foregoing and the amendment to claim 1, Applicants submit that Jayaprakasha et al. fails to anticipate the invention of claim 1 as amended and that the 102(b) rejection has been overcome with respect to claim 1 and the claims depending therefrom.

Claim Rejections – 35 USC § 103

Claims 1-4 and 15-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jayaprakasha et al. (1997, Flavour and Fragrance Journal, 12, 331-333) as evidenced by Tuninst (<http://www.tuninst.net/MyanMedPlants/T1UfamULauraceae.-htm#Cinnamomum-zeylanicum>) and Li (1996, Malawai: Country Report to the FAO International Technical Conference on Plant Genetic Resource, Leipzig) providing evidence of inherent characteristics of Jayaprakasha et al. in view of Agnihotri et al. (1996, Indian J. Experimental Biology, 34, 712-715).

In support of the rejection under Section 103, the Office Action states, “The teachings of Jayaprakasha et al. with Tuninst and Li are set forth above and applied as before.” Applicants have previously addressed these references and here incorporate their above-remarks regarding Jayaprakasha et al. with Tuninst and Li. The Office Action acknowledges that the combination of Jayaprakasha et al. with Tuninst and Li is deficient because the references “do not specifically teach hexane as a solvent, its concentration, temperature range, hours.” In order to cure these acknowledged deficiencies, Agnihotri et al. is cited. However, Applicants submit that Agnihotri et al. does not cure these deficiencies and that more than simple knowledge that hexane can be

utilized in solvent extraction processes is needed to make a proper prima facie case of obviousness.

Agnihotri et al is a journal article concerned with and entitled “A Novel Approach To Study Antibacterial Properties Of Volatile Components Of Selected Indian Medicinal Herbs.” The article states, “This paper presents a study of the effect of volatile components of the commonly used components of Indian medicinal herbs using a novel approach.” See Agnihotri et al, at p. 712. On its face, Agnihotri et al teaches only the use of commonly used components of *Cinnamomum zeylanicum*. Further, Agnihotri et al contains no teaching or suggestion of the use of the unconventional parts (i.e., fruits) of *Cinnamomum zeylanicum*, methods of hexane or hydrocarbon solvent extraction of dried or powdered *Cinnamomum zeylanicum* fruits, or a composition comprising an antibacterial fraction obtained by hexane or hydrocarbon solvent extraction of *Cinnamomum zeylanicum*.

While not explicitly stated, the Office Action (at page 6) acknowledges that Agnihotri et al. teach or disclose only the use of the commonly used or conventional components of *Cinnamomum zeylanicum*. To cure this deficiency, the Office Action, at page 6, states:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use hexane to extract compounds from *Cinnamomum zeylanicum* ripe fruit because *Cinnamomum zeylanicum* extracted with hexane has antibacterial properties. One would have been motivated to extract compounds from *Cinnamomum zeylanicum* ripe fruit with hexane for the expected benefit of extracting compounds with antibacterial properties

Absent evidence to the contrary, there would have been a reasonable expectation

of success in making the claimed invention from the combined teaching of the cited references.

Applicants submit that Agnihotri et al. alone provides no basis for a reasonable expectation that a bioactive fraction could be extracted from a ripe fruit. They teach the use of the common parts of the cinnamon plant for the purposes of investigating volatile components of selected Indian medicinal herbs. In other words, they did so because the commonly used parts of *Cinnamomum zeylanicum*, e.g., bark, contained volatile components that were known or believed to have antibiotic or medicinal properties. Applicants submit that there is nothing in the teaching of Agnihotri et al. that would suggest to one skilled in the art that fruit of *Cinnamomum zeylanicum* contained bioactive components and that such components could be extracted from the fruit.

Applicant submits that the combination of Jayaprakasha et al. with Tuninst, Li and Agnihotri et al. does not render the present invention obvious to one skilled in the art except through hindsight based upon the disclosure of the present application. Further, since not one of the cited references contain any teaching suggesting that the fruit of *Cinnamomum zeylanicum* may contain bioactive components, the combination would not suggest to one of ordinary skill in the art that the fruit could be extracted with hexane or other hydrocarbon solvent or that a composition containing a bioactive fraction could be obtained from solvent extraction of the fruit of *Cinnamomum zeylanicum*.

Applicants submit that a proper obviousness rejection requires that all limitations of the claimed invention must be suggested by the combination of art cited in support of the rejection. No such suggestion relative to all limitations of the invention as claimed in independent claims 1, 15, and 18 is provided. It is established that an obviousness rejection must be based upon some articulated reasoning with some rational underpinning to support a determination of obviousness.

The essence of the support provided for the present obviousness rejection is a mere statement that hexane extraction of the common parts of *Cinnamomum zeylanicum* was known and therefore hexane extraction of any other portion of the *Cinnamomum zeylanicum* will yield a bioactive component. But the obviousness rejection fails to point to any teaching or suggestion that a bioactive fraction can be found in and extracted from *Cinnamomum zeylanicum* fruit. Thus, Applicants respectfully submit that the present obviousness rejection is improper and unsupported and request that it be withdrawn.

Applicants submit that the combination of references do not teach or suggest each and every element of claims 1, 15 and 18 and in light of the within amendments to, claims 1, 15, and 18 have been placed in condition for allowance. Further, claims 3 and 4 depend from claim 1 and claims 16-17 depend from claim 15 and thus are all believed to be patentable for at least the same reasons.

CONCLUSION

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested. Applicants submit herewith a Request for Continued Examination under 37 CFR 1.114. The Commissioner is hereby authorized to charge any additional filing fees required to Deposit Account No. 061910. On behalf of the Applicants, the undersigned plans to contact the Examiner to schedule a telephonic interview in hopes that an interview would be useful to advance prosecution.

Respectfully submitted,

/Adonis A. Neblett/

Appl. No. 10/566,338
Reply to Office Action of April 21, 2009
Page 11 of 11

Adonis A. Neblett
Registration No. 32,358

Customer No. 22859
FREDRIKSON & BYRON, P.A.
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402-1425 USA
Telephone: (612) 492-7000
Facsimile: (612) 492-7077
4577661_1.DOC